Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

NOTES AND LITERATURE

NOTES ON ICHTHYOLOGY

In the *Annals of the Carnegie Museum,* Vol. VII, 1911, Professor Edwin C. Starks gives the result of the survey of San Juan Island in Puget Sound. Professor Starks regards *Hexanchus corinus* from this region as identical with *Hexanchus griseus,* a view already suggested by Mr. Regan. He regards *Raja stellulata* as a valid species. *Raja kincaidi* is identical with *R. stellulata.* New species as follows are described and figured: *Sebastodes deani, S. clavilatus, S. emphæus. Xystes axinophrys* is the young of *Averruncus emmelane. Xiphistes ulvæ* is identical with *X. chirus.* One hundred and fifty-eight species of fishes are enumerated as known to occur in Puget Sound.

In the Publications of the University of California, Vol. VIII, 1911, Edwin C. Starks and William M. Mann discuss a collection of fishes from San Diego. A new genus, *Orthonopias,* based on *O. triacis,* a new species of sculpin with a scaly back allied to *Astrolytes,* is described. Another new genus is *Rusulus,* related to *Clinocottus* and based on a new species, *R. saburræ. Maynea californica* Gilbert is a new species described from Gilbert's manuscript. Valuable notes are given on other rare species.

In *Science,* Vol. XXXI, p. 346, Mr. Henry W. Fowler notes that *Coccogenia* Cockerell and Callaway (*Proc. Biol. Soc. Wash.,* 1902, p. 1, 90) is a synonym of *Coccotis* Jordan (Rept. Geol. Surv. Ohio, IV, 1882, p. 852) both being based on *Hypsilepis coccogenis* Cope.

In the *Proc. Ac. Nat. Sci. Phila.* for 1910, Mr. Henry W. Fowler gives a list of little known fishes of New Jersey. He has also notes on Chimæroid and Ganoid fishes. He recognizes a number of Gar pikes, instead of the three usually recorded as valid. The number is certainly greater than three, but such studies as we have been able to make would not indicate that all of those noted and figured by Mr. Fowler are really distinct species. Mr. Fowler describes as new, *Cylindrosteus scabriceps* from Leavenworth, Kansas, and *C. megalops* from Bay Port, Florida.

In the same proceedings for 1910, Mr. Fowler describes

Dixonina nemoptera, a remarkable new fish of the family of Albulidæ from Santo Domingo.

In the same proceedings Mr. Fowler gives notes on Salmonoid fishes, describing as new, *Stomias bonapartei* from Bonaparte's collection from Sicily, *Synodus dominicensis* from Santo Domingo, and *Synodus dermatogenys* from Hawaii.

In the same proceedings Mr. Fowler lists the fishes of Delaware.

In the same proceedings Mr. Fowler describes a new flat fish from New Jersey under the name *Citharichthys micros.*

In the same proceedings Mr. Fowler gives notes on the Clupeoid fishes. The new genus *Heringia* is established for *Clupea amazonica* Steindachner. *Ilisha narragansettæ* is described from Narragansett Bay. The subgenus *Anchoviella* is proposed for *Engraulis perfasciatus.* This group includes nearly all the species of *Anchovia,* and it is perhaps of generic value as distinct from *Anchovia* and from *Engraulis.* *Anchovia scitula* is described from San Diego, *Anchovia lepidentostole* from Surinam, and *Anchovia platyargyrea* from St. Martins.

In the same proceedings for 1911, Mr. Fowler describes new species from Venezuela and Ecuador.

In the *Proc. U. S. Nat. Mus.* Dr. Jordan and W. F. Thompson discuss the gold-eye of the northwest, *Amphiodon alosoides.*

In the *Proc. Biol. Soc. of Washington* Barton A. Bean and Alfred C. Weed discuss recent additions to the fish fauna of the District of Columbia.

In the *Bull. Wisconsin Nat. Hist. Soc.,* Vol. IX, 1911, George Wagner describes a new species of cisco from Green Lake, Wisconsin, under the name of *Leucichthys birgei.*

In *Science,* Vol. XXXIV, No. 879, Mr. T. D. A. Cockerell describes a new minnow from Julesburg, Colorado, under the name of *Notropis horatii.*

In the *Proc. Biol. Soc. Wash.* Mr. T. D. A. Cockerell discusses the scales of various fishes, concluding that the soles are not degraded flounders but degenerate descendants from some flat fish from which both have been derived. This conclusion has also been reached by Professor G. H. Parker from a study of the optic nerves of the two types.

In the *Bull. Amer. Mus. Nat. Hist.,* Vol. XXX, 1911, John Treadwell Nichols has notes on Teleostean fishes. He describes as new *Moxostoma alleghaniense* from Marshall, North Carolina. *Menidia audens* Hay from Moon Lake, Mississippi, he thinks identical with *Menidia gracilis* from Long Island. *Blennius fabbri* Nichols, lately described as new from Florida, is the young of *Chasmodes bosquianus.* In this paper the curious fish called *Stathmonotus teckla* Nichols is figured.

In *Science,* December 3, 1905, p. 815, the Smooth Hound, *Mustelus mustelus,* is recorded from New Jersey. This European species has not been previously known from our coast.

In the *Ann. of Mag. Nat. Hist.,* Vol. VIII, 1911, Mr. C. Tate Regan publishes a detailed classification of the *Siluroidea* or cat fishes.

In the same annals, Vol. IX, 1912, Mr. Regan gives a classification of the *Pediculate* fishes.

In the same annals Mr. Regan describes the structure of the *Symbranchoid* eels.

In the same annals, Vol. XI, 1912, Mr. Regan gives a study of the *Opisthomi.*

In the same annals, Vol. VIII, 1911, Mr. Regan gives an analysis and classification of the *Gobioid* fishes.

In the same annals, Vol. VIII, 1911, Mr. Regan gives a classification of the *Cyprinoid* fishes and their allies.

In the *Sitz. Acad. Wiss. Wien,* 1911, Dr. Franz Steindachner describes a number of new fishes from South America.

In the *Proc. Biol. Soc. Wash.* Dr. R. W. Shufeldt gives a valuable and interesting account of the rare pelagic fish *Pterycombus brama.* The singular *Caristius* lately described from Japan by Dr. Smith, is an ally of *Pterycombus,* and belongs to the same family.

In the *Memoirs* of the Museum of Comparative Zoology at Harvard Samuel Garman gives a classification of the *Chismopnea* or *Chimæroid* fishes. He describes *Chimæra gilberti* from Hawaii, with valuable notes on all the known species.

In the *Mus. Nat. Hist. of Paris* Dr. Pellegrin describes numerous fishes from Ecuador, South America.

In the *Ann. Carn. Mus.,* Vol. VII, 1911, John D. Haseman gives an elaborate catalogue of the *Cichlid* fishes collected by the Carnegie Expedition to South America.

In the same annals Mr. Haseman describes and figures numerous new species from South America.

In the same annals, Vol. VII, 1911, Mr. Haseman describes new species from the Rio Iguassu, an isolated tributary of the Rio Trabernath, with its peculiar fauna.

In the *Sitz. Acad. Wiss. Wien,* 1911, Dr. Steindachner discusses the fish fauna of Lake Tanganyika with several new species and excellent plates.

In the *Bull. Soc. Zool.* of France Dr. Pellégrin describes a new *Barbus* from South Africa, and in the *Bull. Soc. Philom.,* Paris, he describes a new *Tilapia.*

In *Arch. Zool. Exper.* of Paris Louis Fage discusses the small codfish of the Mediterranean, showing that *capelanus* is distinct from *luscus* and from *minutus.*

In the *Publ. Dept. Agric.* E. W. L. Holt and L. W. Byrne describe the fishes of the genus *Scopelus* (earlier and therefore preferably known as *Myctophum*).

In the *Publ. Zool. Inst. of Lund University* Nils Rosen gives an account of the reptiles and fishes of the Bahamas, an excellent piece of work. New species as follows are described: *Nannocampus nanus* from Andros; *Garmannia rubra* from Andros; *Gobiesox androsiensis* from Andros; *Anchenopterus grandicomis* from Andros. Mr. Rosen regards *Holocentrus siccifer* Cope and *Holocentrus puncticulatus* Barbour as identical with *H. coruscus.* He also suggests the possible identity of the genus *Gymneleotris* and *Pycnomma* with *Garmannia.* The supposition is that in the first named genus the ventrals being described as separated have been simply split apart, the membrane being very thin.

In the *Proc. Roy Soc. of Queensland* J. Douglas Ogilby describes an interesting series of new species.

David G. Stead in the Publications of the Department of Fisheries of New South Wales gives a valuable account of the fisheries of that region.

In the *Kongl. Sven. Vet. Handl.,* XLVII, 1911, Professor Einar Lönnberg gives an account of the reptiles and fishes of British East Africa.

In a considerable volume published by E. J. Brill, of Leyden, 1911, Dr. Max Weber, of the University of Amsterdam, and Dr. L. F. de Beaufort give a complete index to the genera or species described and mentioned by Dr. Pieter Bleeker, the most voluminous of all writers of ichthyology. In view of the exceedingly great difficulty in getting exact references to Dr. Bleeker's works, this volume of 410 pages of names and references is exceedingly useful.

In the *Proc. of the New Zealand Institute,* 1910, Mr. Edgar R. Waite gives a record of additions to the fish fauna of that country with several new genera and species.

In the Report of the Scientific Investigations of Shackleton's British Antarctic Expedition, Edgar R. Waite describes the new species obtained.

In the Records of the Canterbury Museum Edgar R. Waite gives the scientific results of the trawling expedition of the New Zealand government. Numerous interesting discoveries are recorded.

In the Publications of the Department of Trade and Commerce of Australia, 1911, are given the results of the investigations of the steamer *Endeavour* by Mr. Allan R. McCulloch. Many interesting discoveries are recorded.

In the *Proc. U. S. Nat. Mus.* for 1912 Mr. Radcliffe gives a most interesting account of new Pediculate fishes taken by the *Albatross* in the Philippines.

In the same proceedings Dr. Hugh M. Smith describes the three Chimæroid fishes taken in the Philippines.

In the same proceedings Dr. Smith describes a new family of Notidanoid sharks. The genus *Pentanchus* differs from the others in having five branchial openings only, like the ordinary shark. In a note in *Science,* July 19, 1912, p. 81, Mr. Regan claims that this shark is merely a *Scylliorhinus* which has been deprived of a dorsal fin.

In the same proceedings Dr. Smith describes numerous Squaloid sharks from the Philippines. As to these, Mr. Regan claims that *Nasisqualus* is identical with *Acanthidium* and with *Deania.* *Squaliolus* is a valid genus.

In the same proceedings Mr. Radcliffe describes 15 new species of *Amia* (*Apogon*) and related genera from the Philippines.

In the *Abhandl. Senckenberg. Naturf. Ges. Frankfurt,* Vol. XXXIV, 1911, Professor Max Weber gives an account of the fishes taken in the Aru and Kei Islands with a series of excellent figures.

In *Science,* May 12, 1911, Dr. Theodore Gill gives a valuable review of Professor Thompson's translation of Aristotle's "History of Animals."

In a volume entitled "The Freshwater Fishes of the British Isles" Mr. C. Tate Regan gives a most valuable popular account of the different river fishes of Great Britain and Ireland. This is written in such a way that no person of intelligence need have any difficulty in recognizing the different species found in the British streams.

In the *Abhandl. Bayer. Akad. Wiss.,* Munich, Dr. Victor Franz publishes a most valuable paper on the bony fishes collected in Japan by Haberer and Döflein. Many new species are described, particularly from that richest of all collecting grounds, Sagami Bay, and contains many notes of value in our study of the Japanese fauna.

In the *Publ. Imp. Univ. Tokyo* Mr. Shigeho Tanaka, lecturer in the Science College, has begun a series of figures and descriptions of the fishes of Japan. This work is extremely well done and each species is illustrated by excellent plates. There is no attempt at classification, each of the five parts now issued from April 15, 1911, to March 10, 1912, containing species valuable for his purpose, without attempt at orderly arrangement.

In the *Sitz. Acad.* at Vienna, 1909, Dr. Victor Pietschmann describes a new species, *Hemilepidotus megapterygius* from Japan.

In the *Proc. U. S. Nat. Mus.* Professor J. O. Snyder describes many new species and genera from Japan and from the Riu Kiu Islands.

In the *Ann. Nat. Mus. Wien.* Dr. Victor Pietschmann describes the variations of a frog fish in Japan, and also describes two species of fishes from Formosa.

In the *Journal of the College of Agriculture* Dr. K. Kishinouye describes new herring from the Bonin Islands, and also gives an account of prehistoric fishing in Japan.

In the *Publ. Roy. Mus. Belgium* at Brussels Professor Louis Dollo has a very interesting discussion of what he calls Ethologic Paleontology.

In the *American Journal of Science* Dr. Charles R. Eastman describes several new sharks from Solenhofen, in the Carnegie Museum.

In the *Bull. Soc. Geol. France* Dr. Maurice Leriche describes cretaceous fishes from the basin of Paris.

In another publication at Lille M. Leriche describes Stampian fishes of the basin of Paris.

In the *Memoirs of the Carnegie Museum,* 1911, Dr. Eastman gives a catalogue of the fossil fishes contained in that museum, with a description and figure of many species.

In the *Mem. Mus. Roy. Belgique* Professor Ramsey Traquair gives an elaborate and valuable account of the fossil fishes of the Weald from the Bernissart.

In the *Proc. Acad. Sci. of Naples* Francesco Bassani gives an elaborate account of the fossil Berycoid fishes (*Myripristis melitensis*) from the Miocene at Malta.

In the *Annals de Paleontologie* M. F. Prien gives a valuable study of the fossil fishes of the basin of Paris.

In the *Conn. Geol. Surv.*, 1911, Dr. Eastman gives a description of the Triassic fishes known from Connecticut.

In the *Geol. Mag.* Dr. Louis Hussakof describes several *Arthrodira* from Ohio.

In the *Publ. Carn. Inst. Wash.* Mr. Hussakof describes the amphibian fishes known from Permian rocks from North America.

In the Publications of the Fish Commission of Pennsylvania Dr. David Marine and Dr. C. H. Lenhart describe their observations on the thyroid carcinoma or goitre of the brook trout, and the possibility of the relation of this disease to cancer. These studies are continued in the *Journal of Experimental Medicine*, Vol. XIII, 1911. It is concluded that there is no evidence that goitre is either infectious or contagious, its cause probably depending on lack of or a disproportion of elements necessary for proper nutrition. This is also discussed by the authors in the *Johns Hopkins Medical Bulletin*, Vol. XXI, 1910.

In the *Science Bulletin* of the University of Kansas, Professor Ida H. Hyde gives experiments on the effects of salt injections on the blood pressure of the skate.

In the *Amer. Jour. Anat.* William F. Allen describes the lymphatics in the tail of a large sculpin in California.

In the *Trans. Canad. Inst.* Professor J. P. McMurrich gives an interesting account of the life history of the Pacific salmon.

In the *Proc. Roy. Soc. Canada* Professor McMurrich has an elaborate study of the marks on the scales of fishes by which the age of salmon may be known.

In the *Publications of Stanford University*, 1911, Professor E. C. Starks gives a detailed account of the osteology of the mackerel-like fishes. He shows that *Leiognathus* is a true Scombroid, and not in any way related to the Percoid family, *Gerridæ*, with which Regan has placed it. In general the relations of the families on the Scombroid group are fairly determinable by their external appearance.

In the *Journal of Comparative Neurology* Dr. R. E. Sheldon discusses the relation of the dogfish to chemical stimuli, and also the sense of smell among sharks. He shows that the dogfish obtains its food chiefly through the sense of smell, which is comparable to that of the higher vertebrates.

In the *Internat. Revue Hydrobiol. Leipzig,* 1909, Dr. Victor Franz discusses the effect of light on the movements of Indian fishes.

In the *Journal of Morphology,* Dr. J. F. Gudernatsch describes the thyroid glands of fishes.

In the University of California publications Mr. Asa C. Chandler describes the lymphoid structure on the brain of the gar pike.

In the *Bull. Bur. Fish.* Profesor G. H. Parker describes the influence of sense organs on the movements of the dogfish.

In the *Zool. Jahrb. Wiss.* Mr. J. C. Loman describes the natural history of the European lampreys.

In the *Arkiv. för Zool. Stockholm* Nils Rosen describes the blood-vascular system of the Plectognath fishes.

In the *American Journal of Physiology* Professor Parker describes the integumentary nerves of fishes, their reception of light and their significance in relation to the origin of eyes of vertebrates.

In the *Bull. Bur. Fish.* Professor Parker describes the relation of fishes to sound.

In the AMER. NATUR., 1908, he discusses the origin of the lateral eyes of vertebrates.

In the same bulletin, 1908, he discusses the structure and function of the ear of the squeteague.

In the *Century Magazine,* 1910, Mr. Charles H. Townsend discusses under the head of ''Chameleons of the Sea,'' the changes of color among fishes.

In the Bur. of Fish. documents Professor Parker discusses the effect of explosive sounds on fishes. These noises are faint under water and may startle fishes for the moment, but they have no permanent effect.

In the *Journ. Exper. Zool.* Dr. Francis B. Sumner discusses the color changes of flat fishes with respect to their adaptation to various backgrounds.

In the *Journ. Coll. Sci. Imp. Univ. Tokyo* Mr. H. Ohshima gives an interesting and valuable study of the luminous organs of different species of fishes.

In the *Transactions of the American Fisheries Society* Mr. John P. Babcock describes his experiments in burying the eggs of salmon and trout in gravel, the result of this being that a much larger number of eggs hatch, and the young are more vigorous than when hatched in the ordinary way.

> If the eggs of salmon are buried beneath five or six inches of sand and gravel, such eggs will hatch and the young will work their way up through the sand and gravel to the surface, and by the time they emerge they have absorbed their sacs and are then exempt from the attacks of vegetable moulds.

Mr. Babcock thinks that to follow more closely the method of nature will give more value to artificial fishery hatching.

In the Report of the Fishery Board of Scotland, 1910, Dr. H. C. Williamson gives a valuable report of the reproductive organs of different species of Scottish fishes.

In the *Bull. Zool. Soc. New York* Dr. F. B. Sumner continues his study on the changes of color of fishes on different bottoms. The purpose of these changes seems to be simply concealment from their enemies as well as from those fishes on which they prey.

In *Knowledge,* Vol. XXXIII, 1910, Rev. T. R. R. Stebbing discusses genders in zoology, sharply criticizing the carelessness with which scientific men have made what he calls "Homeric blunders," Homer being accustomed to nod when questions of classical refinement were brought before him. Mr. Stebbing proposes that in zoology every generic name, whatever its termination, should be recorded as masculine.

In the *Philippine Journal of Science* Alvin Seale gives a valuable account of the fishery resources of the Philippine Islands.

In the *Biological Bulletin* Victor E. Shelford gives an interesting account of experiments on stream fishes and pond fishes.

In the Bureaus of Fisheries Document 733 William C. Kendall discusses the American fishes, their habits and value.

In *Science,* October 11, 1911, Professor E. C. Starks discusses the structure of the air bladder in *Ophicephalus.*

In *Science,* Vol. XXXIII, 1911, Mr. Starks discusses the origin of the gobies. He regards them as somewhat allied to the sculpins.

In the First Annual Report of the Laguna Marine Laboratory of Pomona College, Claremont, California, are numerous excellent papers on the local fauna of Laguna Beach in southern California. Among these papers is an elaborate and well-planned study of the fishes of the tide pools, by Charles W. Metz. The report is accompanied by excellent plates.